

FIG. 1  
(PRIOR ART)

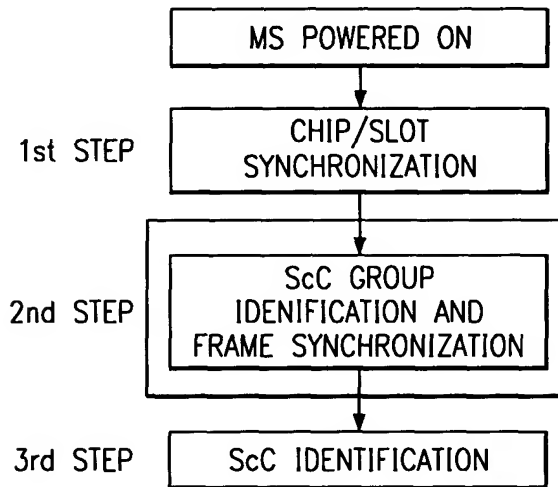


FIG. 3A  
(PRIOR ART)

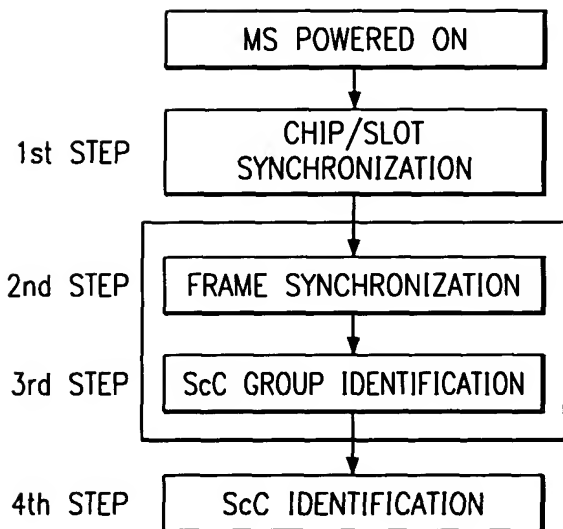


FIG. 3B  
(PRIOR ART)

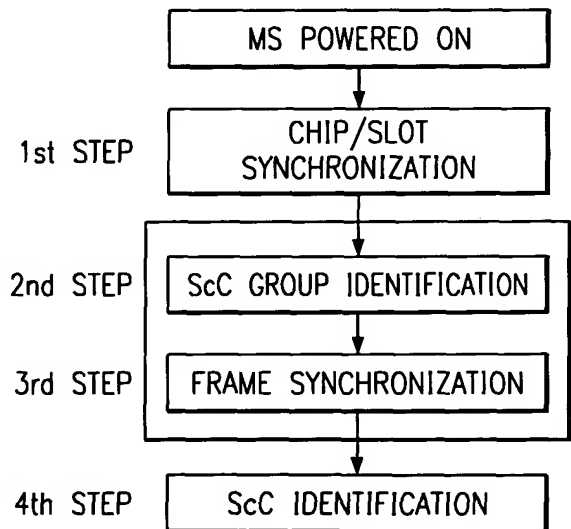
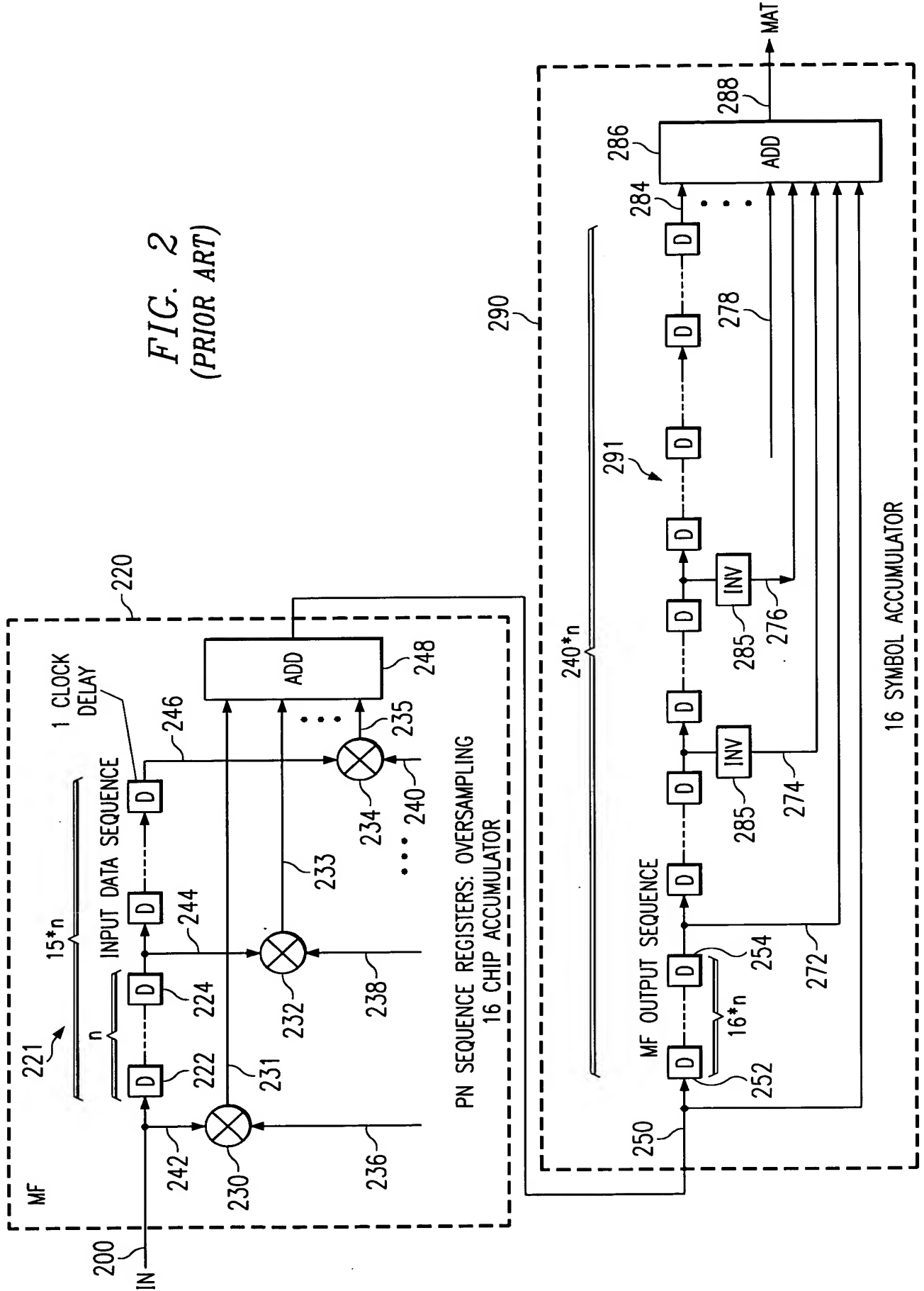


FIG. 3C  
(PRIOR ART)

FIG. 2  
(PRIOR ART)



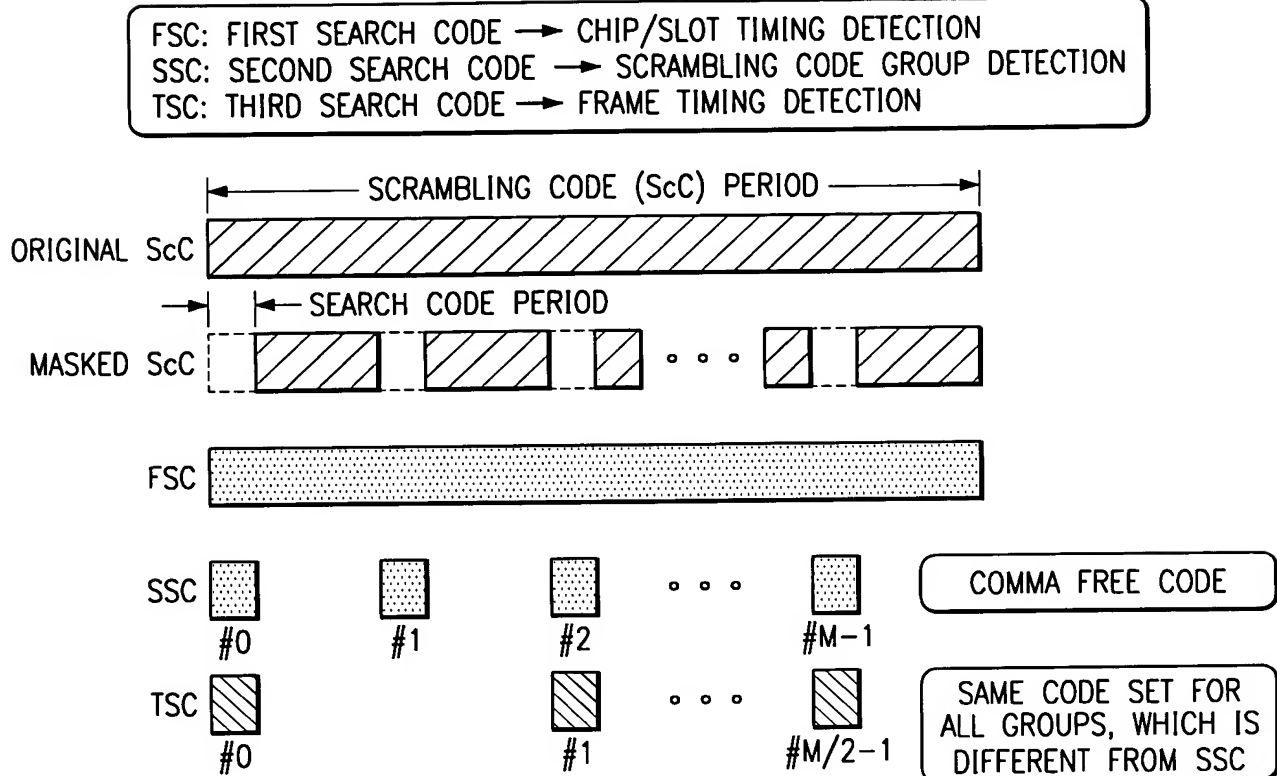


FIG. 4  
(PRIOR ART)

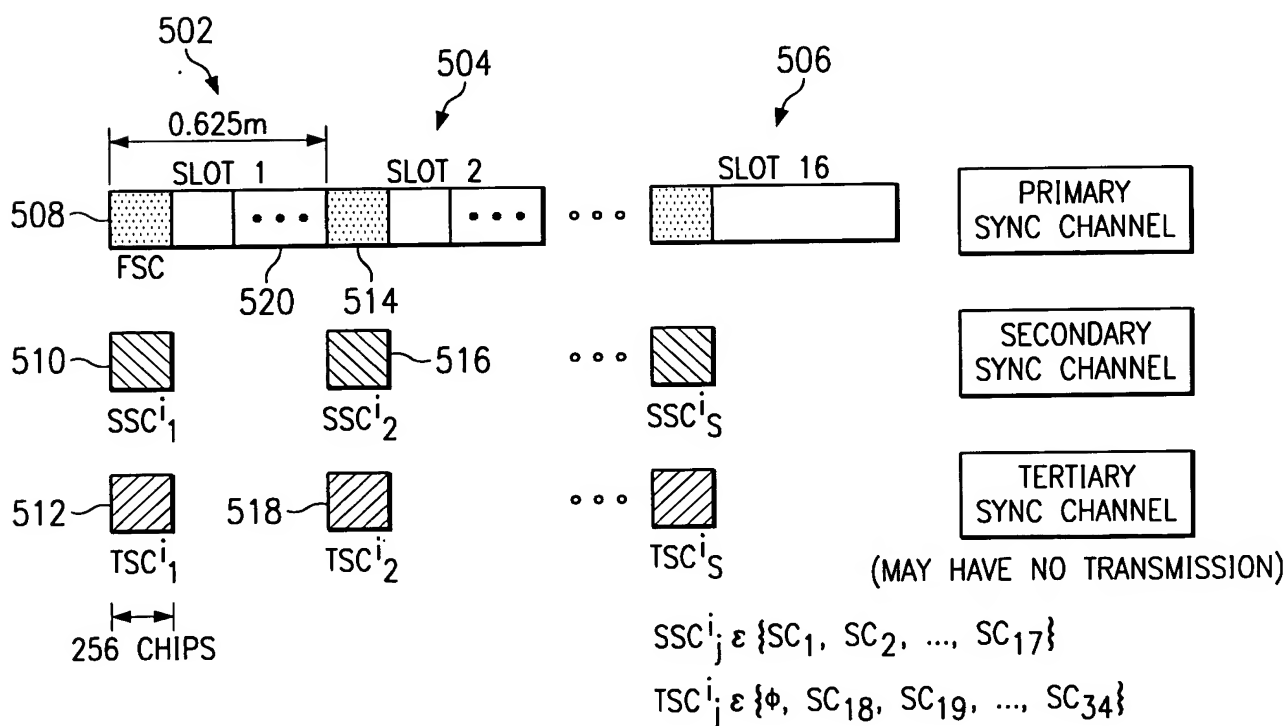
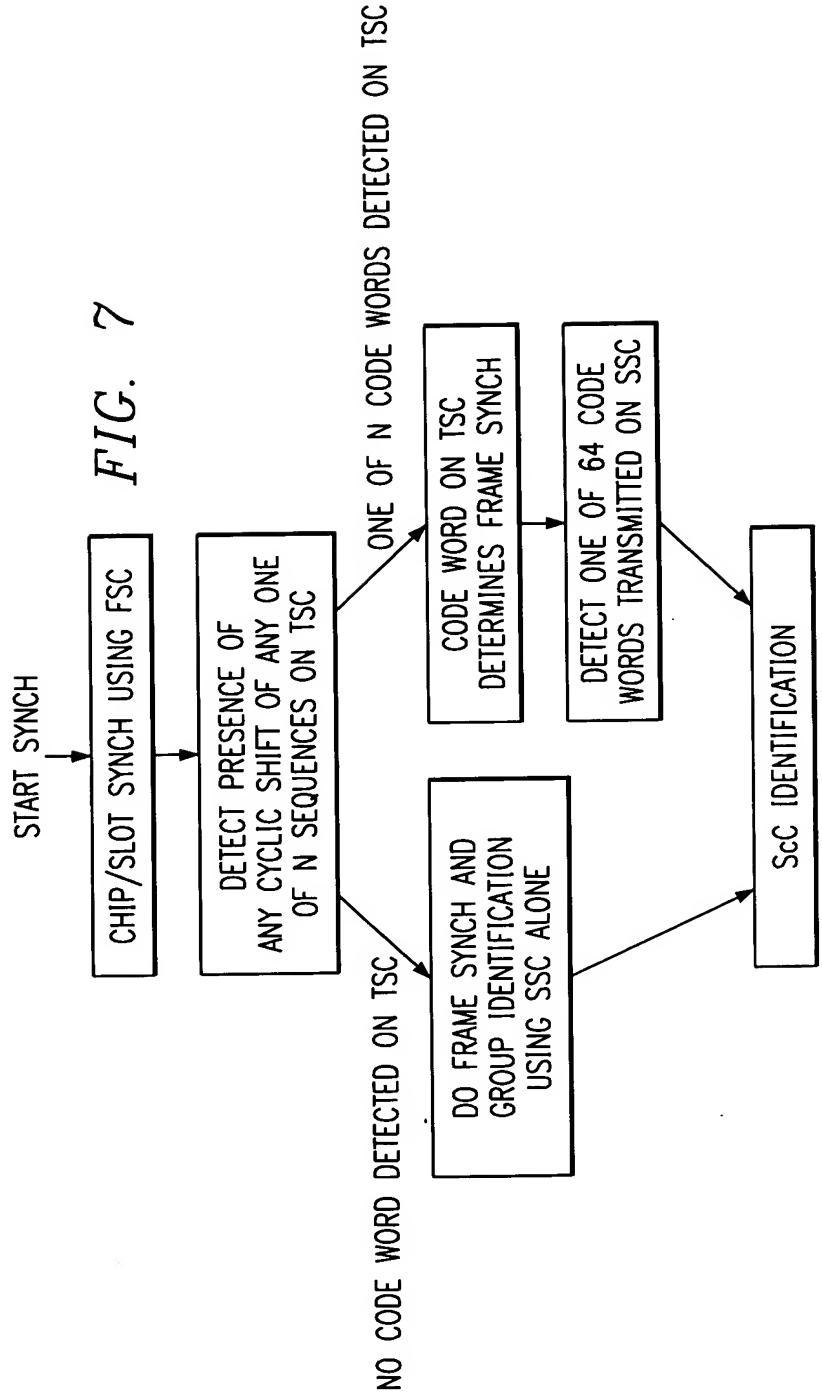


FIG. 5

FIG. 6

SEQUENCE ON TSC	SEQUENCE ON SSC	#Gps	#ScC	ScC NUMBERS HANDLED
NOTHING ( $TSC_1 = \phi$ )	ONE OF 16 CF SEQUENCES	16	256	ScC1 TO ScC256
ONE OF N CF SEQUENCES	ONE OF 64 CF SEQUENCES	Nx64	$N \times 64 \times 16 = N \times 1024$	ScC257 ONWARDS
TOTAL #ScC			$N \times 1024 + 256$	



	CORRELATION COMPLEXITY	MATCHING COMPLEXITY (SSC)	MATCHING** COMPLEXITY (TSC)	N=1, #ScC= 256)	N=3, #ScC= 3072*	N=4, #ScC= 4096*
PRIOR ART	6656	$16 \times \#Gps + \#Gps$	$8 \times 16 + 16$	7072 (100%)	10064 (100%)	11152 (100%)
NEW SCHEME FOR FIRST 256 ScC'S (NO TSC PRESENT)	$6656 + 1152 = 7808$	$16 \times 16 \times 16$	$N \times 8 \times 16 + N \times 16$ (ONLY NEEDED FOR $N > 1$ )	11904 (168%)	12336 (123%)	12480 (112%)
NEW SCHEME, WHEN #ScC > 256, FOR ScC'S AFTER THE FIRST 256 ScC'S	7808	$64 \times 16$	$N \times 8 \times 16 + N \times 16$	----	9264 (92%)	9408 (84%)

FIG. 8

(SC1 SC2 SC5 SC14 SC7 SC3 SC8 SC6 SC17 SC16 SC13 SC4 SC11 SC15 SC10 SC12)  
 (SC2 SC3 SC6 SC15 SC8 SC4 SC9 SC7 SC1 SC17 SC14 SC5 SC12 SC16 SC11 SC13)  
 (SC3 SC4 SC7 SC16 SC9 SC5 SC10 SC8 SC2 SC1 SC15 SC6 SC13 SC17 SC12 SC14)  
 (SC4 SC5 SC8 SC17 SC10 SC6 SC11 SC9 SC3 SC2 SC16 SC7 SC14 SC1 SC13 SC15)  
 (SC5 SC6 SC9 SC1 SC11 SC7 SC12 SC10 SC4 SC3 SC17 SC8 SC15 SC2 SC14 SC16)  
 (SC6 SC7 SC10 SC2 SC12 SC8 SC13 SC11 SC5 SC4 SC1 SC9 SC16 SC3 SC15 SC17)  
 (SC7 SC8 SC11 SC3 SC13 SC9 SC14 SC12 SC6 SC5 SC2 SC10 SC17 SC4 SC16 SC1)  
 (SC8 SC9 SC12 SC4 SC14 SC10 SC15 SC13 SC7 SC6 SC3 SC11 SC1 SC5 SC17 SC2)  
 (SC9 SC10 SC13 SC5 SC15 SC11 SC16 SC14 SC8 SC7 SC4 SC12 SC2 SC6 SC1 SC3)  
 (SC10 SC11 SC14 SC6 SC16 SC12 SC17 SC15 SC9 SC8 SC5 SC13 SC3 SC7 SC2 SC4)  
 (SC11 SC12 SC15 SC7 SC17 SC13 SC1 SC16 SC10 SC9 SC6 SC14 SC4 SC8 SC3 SC5)  
 (SC12 SC13 SC16 SC8 SC1 SC14 SC2 SC17 SC11 SC10 SC7 SC15 SC5 SC9 SC4 SC6)  
 (SC13 SC14 SC17 SC9 SC2 SC15 SC3 SC1 SC12 SC11 SC8 SC16 SC6 SC10 SC5 SC7)  
 (SC14 SC15 SC1 SC10 SC3 SC16 SC4 SC2 SC13 SC12 SC9 SC17 SC7 SC11 SC6 SC8)  
 (SC15 SC16 SC2 SC11 SC4 SC17 SC5 SC3 SC14 SC13 SC10 SC1 SC8 SC12 SC7 SC9)  
 (SC16 SC17 SC3 SC12 SC5 SC1 SC6 SC4 SC15 SC14 SC11 SC2 SC9 SC13 SC8 SC10)

FIG. 9